AD-A127 334 19319A MLRS MISSILE NUMBER BN-182 BN-153 BN-161 BN-178 1/1
BN-145 BN-192 ROUN..(U) ARMY ELECTRONICS RESEARCH AND
DEVELOPMENT COMMAND WSMR NM ATM.. D C KELLER FEB 83
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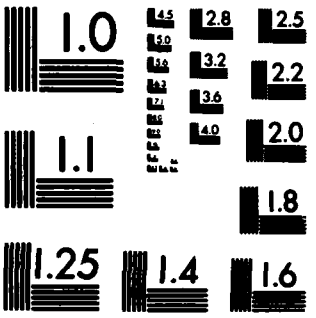

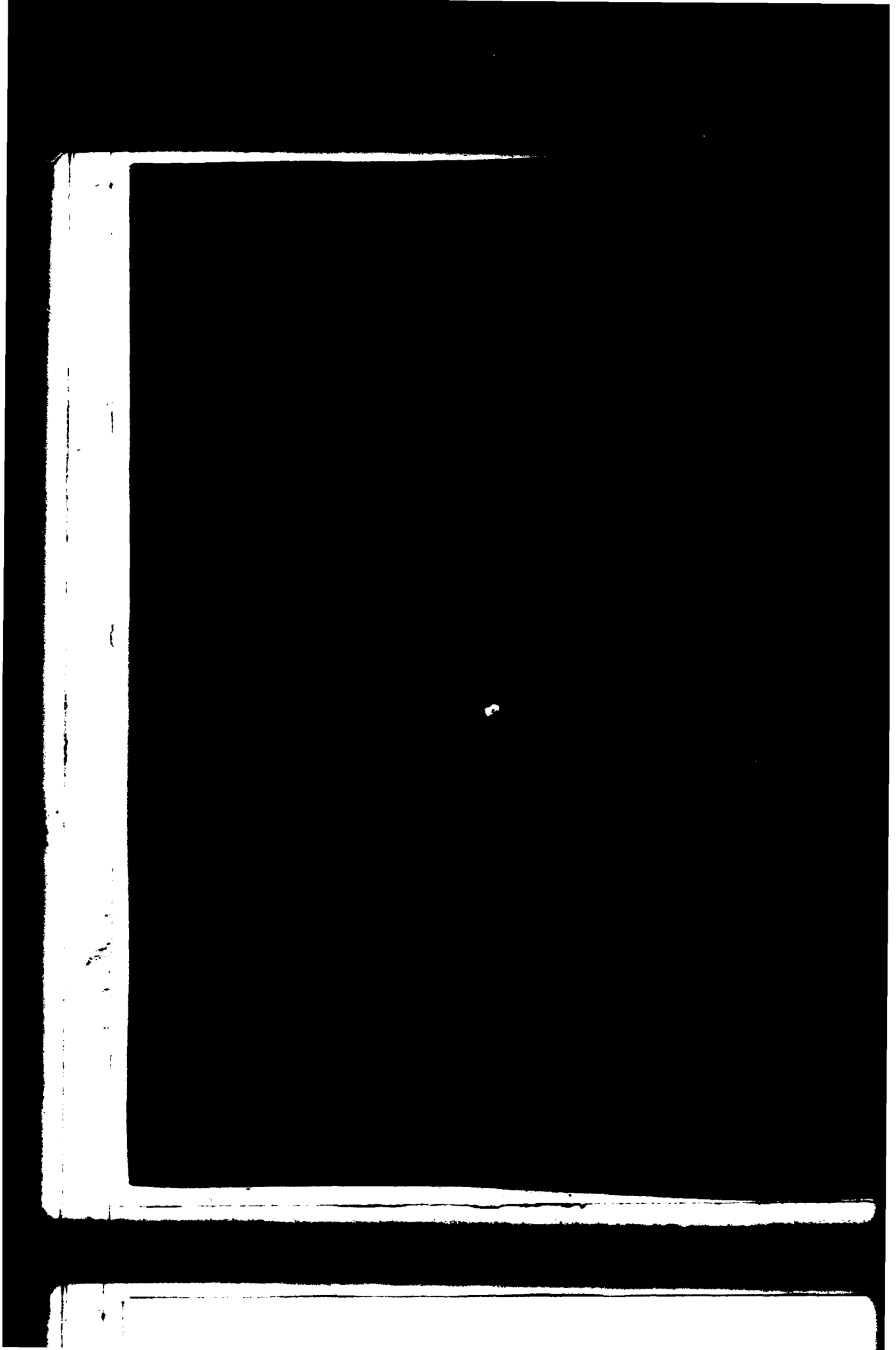

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE	READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER: DR 1288	2. GOVT ACCESSION NO.: AD-A127334 / 3. RECIPIENT'S CATALOG NUMBER:
4. TITLE (and Subtitle): 19319A WLRS Missile Number BU-132,153,161,178,145,192 Round Number V-411/P0-109,V-412/P0-110,V-413/P0-111 V-414/P0-112,V-415/P0-113,V-416,P0-114	5. TYPE OF REPORT & PERIOD COVERED
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11. CONTROLLING OFFICE NAME AND ADDRESS: US Army Electronics Research and Development Cmd Atmospheric Sciences Laboratory White Sands Missile Range, New Mexico 88002	12. REPORT DATE: February 1983
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DISTRIBUTION STATEMENT A
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Distribution Unlimited

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Approved for public release; distribution unlimited.

18. SUPPLEMENTARY NOTES

19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meteorological data gathered for the launching of the 19319A WLRS, Missile Number BU-132, 153, 161, 178, 145, 192, Round Number V-411/P0-109,V-412/P0-110, V-413/P0-111, V-414/P0-112, V-415/P0-113, V-416/P0-114 are presented in tabular form.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

CONTENTS

INTRODUCTION

10319A MLRS, Missile Numbers BN-182, BN-153, BN-161, BN-178, BN-145, BN-192, Round Numbers V-411/PO-109 thru V-416/PO-114, were launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 1410:07, 1410:11, 1410:16, 1410:21, 1410:25, and 1410:30 MST, 4 Feb 1983. The scheduled launch times were 1400 MST (3T's) and 1410 MST (3T's) with a 4.5 second separation.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

   a. Surface

   (1) Standard surface observations to include pressure, temperature (^{o}C), relative humidity, dew point (^{o}C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 Minutes.

   (2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

   b. Upper Air

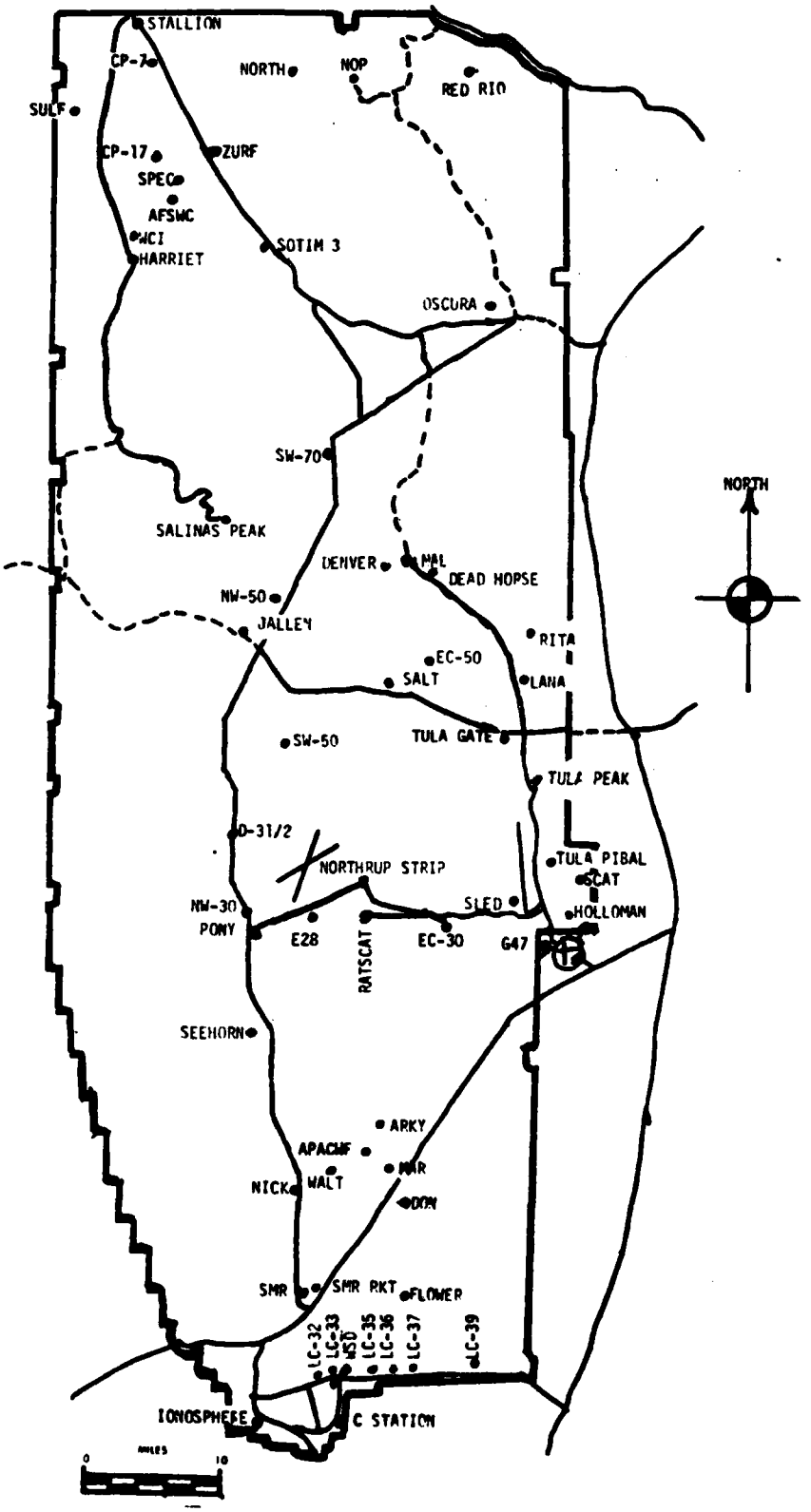
   (1) Low level wind data were obtained from pilot-balloon observations at:

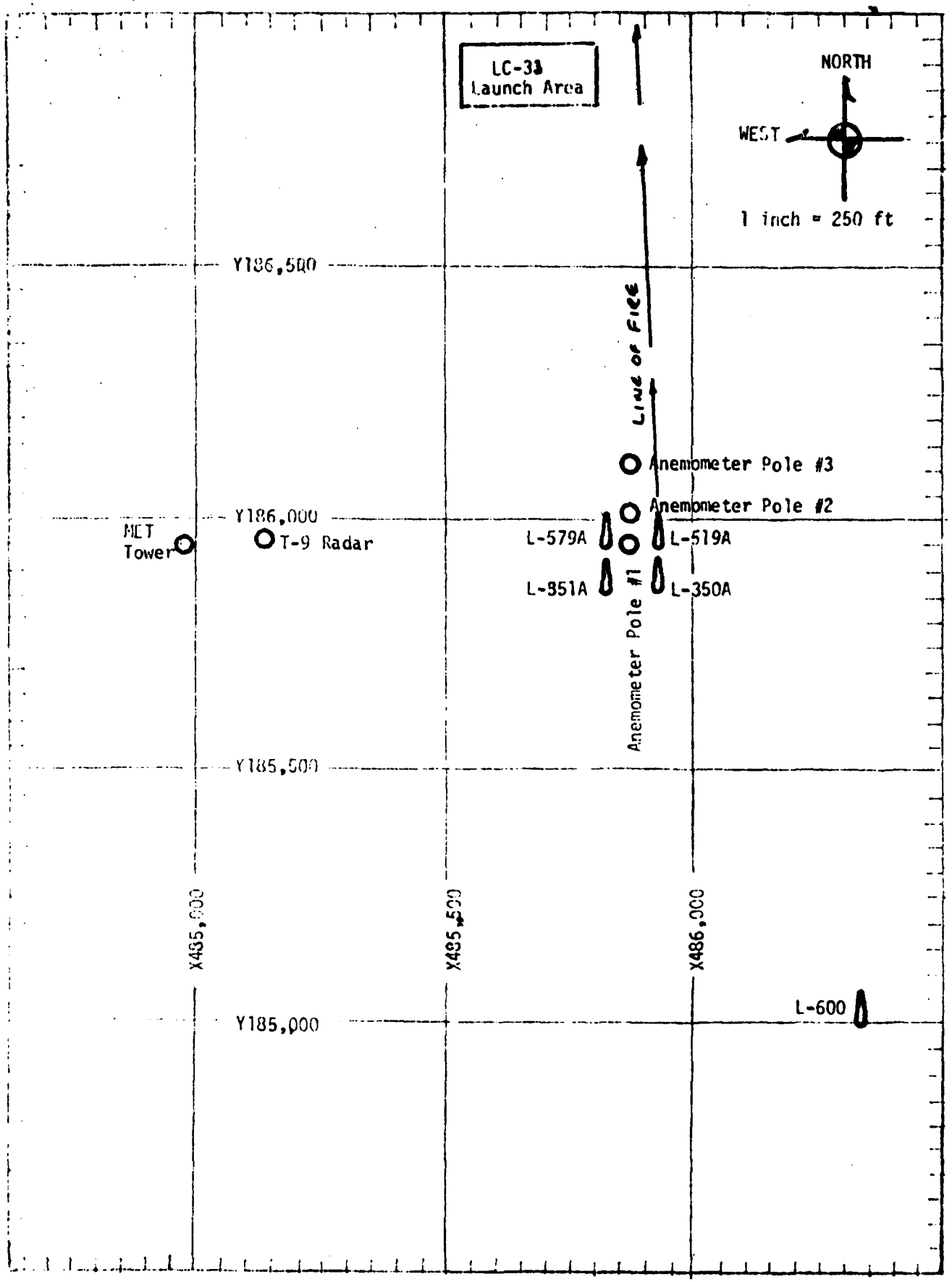
SITE AND ALTITUDE
WSD 2 km
DOU 2 km

   (2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME
WSD 1200 MST
USD 1400 MST

WSMR METEOROLOGICAL SITES




LC-39
Launch Area
NORTH
WEST
1 inch = 250 ft
Y186,500
LINE OF FIRE
Anemometer Pole #3
Anemometer Pole #2
Y186,000
MET
Tower
T-9 Radar
L-579A
L-519A
L-351A
L-350A
Anemometer Pole #1
Y185,500
X485,000
X485,500
X486,000
L-600
Y185,000

PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-33

DATE 4 (DAY) Feb (MONTH) 83 (YEAR) X= 404,922.64 Y= 135,057.73 H= 2295.00

TIME M - -	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
1410	872.4		10.4		6.2	75	1070	195	16		40

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	7	CU	4000							

PSYCHROMETRIC COMPUTATION

TIME: MST	1410		
DRY BULB TEMP.	10.4		
WET BULB TEMP.	8.1		
WET BULB DEPR.	2.3		
DEW POINT	6.2		
RELATIVE HUMID.	75		

TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASURED WINDS

POLE #1 X485,874.29 Y185,958.90 H4018.74 38.7 ft. AGL			POLE #2 X485,874.29 Y186.012.00 H4033.57 53.0 ft. AGL			POLE #3 X485,877.29 Y186,116.06 H4063.92 83.6 ft. AGL		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30	191	17	-30	178	14	-30	174	17
-20	193	18	-20	180	15	-20	169	19
-10	195	19	-10	172	17	-10	170	18
0.0	199	20	0.0	179	18	0.0	171	20
+10	176	19	+10	174	16	+10	174	21

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASURED WINDS (202 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 62 FEET X484,982.64, Y185.057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30	185	16	-30	165	18
-20	172	18	-20	171	20
-10	184	18	-10	179	18
0.0	195	17	0.0	177	14
+10	199	15	+10	176	20

LEVEL #3, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #4, 202 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KNOTS	T-TIME SEC	DIR DEG	SPEED KNOTS
-30	MISS	18	-30	169	18
-20	MISS	19	-20	184	20
-10	MISS	18	-10	184	18
0.0	MISS	16	0.0	183	20
+10	MISS	16	+10	167	20

TABLE 4

T-TIME PILOT-BALLOON MEASURED WIND DATA

DATE 4 February 1983

SITE: WSD
TIME: 1410 MST
WSTM COORDINATES:
X= 488,852.29
Y= 194,982.45
H= 3,993.75

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	170	08
150	174	20
210	166	13
270	179	13
330	162	14
390	175	22
500	197	25
650	200	23
800	219	29
950	223	29
1150	228	30
1350	234	29
1550	234	30
1750	240	34
2000	242	39

Data obtained from a NIKE-HERCULES Radar tracked pilot-balloon observation.

SITE: DON
TIME 1411 MST
WSTM COORDINATES:
X= 511,988.37
Y= 247,396.36
H= 3,996.83

LAYER MIDPOINT METERS AGL	DIRECTION DEGREES	SPEED KNOTS
SURFACE	140	12
150	160	17
210	167	19
270	177	20
330	186	21
390	190	21
500	194	21
650	200	18
800	223	20
950	230	26
1150	237	31
1350	244	32
1550	244	34
1750	251	32
2000	259	32

Data obtained from a single Theodolite tracked pilot-balloon observation.

TABLE 5

AIMING AND T-TIME COMPUTER MET MESSAGES
4 February 1983

USD 1200 MST		WSD 1400 MST	
METCM1324064		METCM1324064	
041900122875		042100122873	
00196014	28960875	00302008	28380873
01237015	27920865	01307024	28300863
02280015	27680839	02326016	27940837
03340016	27540798	03375024	27720797
04429019	27330759	04413030	27360749
05413034	27010705	05426032	26910704
06415040	26690661	06438044	26500660
07416050	26300620	07426053	26360619
08421061	25850581	08427061	26120580
09415059	25630544	09428068	25750543
10414055	25280509	10422069	25350508
11417063	24900475	11427066	24930475
12426067	24440428	12432073	24490428

STATION ELEVATION 3989.00 FT, 1 MSL
9 FEB. 63 1200 HRS MST
ASCENSION NO. 21

SIGNIFICANT LEVEL DATA
03500206B1
WHITE SANDS
TABLE-B

GEODETIC COORDINATES
32.40043 LAT DEG
106.37035 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE PERCENT
875.6	3989.0	5.9	5.2	95.0
858.0	4784.3	3.1	3.0	99.0
799.4	6448.6	1.3	1.0	98.0
772.1	7334.8	.7	.6	99.0
706.0	9902.0	-4.0	-5.1	92.0
654.3	11900.8	-7.9	-8.0	99.0
642.1	12325.8	-7.3	-7.4	99.0
638.8	12459.2	-2.6	-2.7	99.0
630.1	12812.6	-9.5	-9.8	98.0
610.1	13658.3	-11.7	-21.2	45.0
592.6	14413.5	-14.6	-36.1	14.0
580.0	14688.3	-14.4	-35.2	15.0
556.2	15728.9	-16.1	-36.0	13.0
541.2	16484.8	-16.8	-36.6	16.0
506.0	18382.8	-21.3	-41.6	14.0
467.4	19865.6	-25.3	-44.9	14.0
460.2	20336.1	-25.5	-45.0	14.0
400.0	23639.0	-31.8	-50.2	14.0
346.5	26923.7	-39.8	-56.9	14.0

STATION ALTITUDE 3989.[illegible] FEET MSL
[illegible] 1200 HRS MST
ASCENSION NO. 61

UPPER AIR DATA
0350020001
WHITE SANDS
TABLE-7

GEODETIC COORDINATES
32.40043 LAT DEG
106.37633 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	875.6	5.9	5.2	95.0	1088.9	652.0	110.0	14.0	1.000266
4000.0	875.2	5.9	5.1	95.1	1088.6	652.0	110.3	13.9	1.000265
4500.0	859.1	4.1	3.8	97.6	1075.6	649.6	125.6	12.9	1.000279
5000.0	843.1	2.9	2.7	98.9	1060.6	648.3	149.9	11.1	1.000273
5500.0	827.4	2.3	2.1	98.6	1042.9	647.7	164.8	11.6	1.000268
6000.0	812.0	1.8	1.5	98.3	1025.6	647.0	181.2	13.4	1.000263
6500.0	796.8	1.3	1.0	98.1	1008.4	646.4	194.3	15.2	1.000258
7000.0	781.9	.9	.7	95.6	990.8	646.0	210.8	15.3	1.000253
7500.0	767.2	.4	.2	98.5	974.1	645.3	220.0	16.6	1.000248
8000.0	752.7	-.5	-.4	97.2	959.1	644.2	232.6	19.5	1.000243
8500.0	738.5	-1.4	-2.0	95.8	944.3	643.0	233.7	22.9	1.000237
9000.0	724.5	-2.3	-3.1	94.5	929.7	641.9	236.7	26.5	1.000232
9500.0	710.8	-3.3	-4.2	93.1	915.4	640.6	234.1	31.0	1.000227
10000.0	697.4	-4.2	-5.2	92.4	901.3	639.6	232.2	35.5	1.000222
10500.0	684.0	-5.2	-6.0	94.2	887.4	638.4	232.2	38.4	1.000218
11000.0	670.6	-6.3	-6.8	96.0	873.8	637.1	232.6	40.7	1.000214
11500.0	657.9	-7.3	-7.6	97.9	860.4	635.9	233.1	42.8	1.000210
12000.0	645.3	-7.5	-7.7	99.0	844.6	635.6	233.7	44.6	1.000207
12500.0	632.4	-7.3	-7.5	98.3	827.6	635.9	234.3	46.3	1.000203
13000.0	620.5	-11.4	-19.3	51.9	825.2	630.5	235.1	49.4	1.000191
13500.0	608.3	-13.0	-26.7	30.6	814.3	628.4	235.6	52.7	1.000185
14000.0	596.3	-14.6	-35.8	14.5	803.1	626.5	236.2	55.6	1.000180
14500.0	584.4	-14.5	-35.5	14.7	786.8	626.7	236.2	57.9	1.000177
15000.0	572.8	-14.9	-36.1	14.4	772.5	626.1	236.0	59.7	1.000174
15500.0	561.4	-15.7	-37.4	13.4	759.5	625.1	234.9	59.8	1.000171
16000.0	550.1	-16.4	-37.4	14.2	746.3	624.3	233.8	59.9	1.000168
16500.0	539.3	-17.6	-36.3	15.9	733.1	623.5	233.4	59.2	1.000165
17000.0	528.2	-18.2	-38.1	15.4	721.6	622.1	23[illegible].2	58.3	1.000162
17500.0	517.5	-19.3	-39.4	14.9	710.2	620.7	235.1	57.5	1.000159
18000.0	507.1	-20.5	-40.7	14.4	699.1	619.3	233.3	57.9	1.000157
18500.0	496.7	-21.7	-41.9	14.0	688.1	617.8	235.6	58.3	1.000154
19000.0	486.5	-22.9	-42.9	14.0	677.3	616.3	234.3	59.6	1.000152
19500.0	476.5	-24.2	-43.9	14.0	666.6	614.8	235.3	61.7	1.000149
20000.0	466.7	-25.3	-44.9	14.0	656.0	613.5	236.2	63.9	1.000147
20500.0	457.0	-25.8	-45.3	14.0	643.6	612.7	237.2	65.5	1.000144
21000.0	447.4	-26.5	-46.1	14.0	632.6	611.5	238.2	67.0	1.000141
21500.0	438.0	-27.7	-46.9	14.0	621.7	610.3	239.0	68.4	1.000139
22000.0	428.8	-28.7	-47.7	14.0	611.0	609.2	239.4	68.5	1.000137
22500.0	419.8	-29.6	-48.4	14.0	600.5	608.0	239.7	68.6	1.000134
23000.0	411.0	-29.6	-49.2	14.0	590.2	606.6	239.9	68.6	1.000132

STATION ALTITUDE [illegible] FT. MSL
[illegible] PER. 43 1200 GMT 851
ASCENSION NO. 51

UPPER AIR DATA
03500020061
WHITE SANDS
TABLE-7 cont'd

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	402.4	-31.5	-36.6	14.0	580.1	605.6	240.2	68.4	1.000130
24000.0	393.7	-32.7	-41.0	14.0	570.4	604.1	240.4	68.3	1.000127
24500.0	385.2	-33.9	-52.0	14.0	560.9	602.6			1.000125
25000.0	376.9	-35.1	-57.0	14.0	551.6	601.1			1.000123
25500.0	368.7	-36.3	-50.0	14.0	542.4	599.5			1.000121
26000.0	360.8	-37.6	-55.0	14.0	533.4	598.0			1.000119
26500.0	353.0	-38.8	-56.0	14.0	524.6	596.4			1.000117

15

STATION ALTITUDE 3999.0 FEET SFC
0 FEB 63 1200 MDS EST
ASCENSION NO. 61

MANDATORY LEVELS
63WS02061
WHITE SANDS
TABLE-3

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE AIR	TEMPERATURE DEWPOINT	REL.HUM.	WIND DATA DIRECTION	WIND DATA SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE		PERCENT	DEGREES(TN)	KNOTS
850.0	4781.	3.1	3.0	99.	136.1	11.3
800.0	6320.	1.4	1.1	98.	190.9	15.3
750.0	8033.	-.7	-1.1	97.	233.3	29.2
700.0	9873.	-4.0	-5.1	92.	232.5	34.6
650.0	11900.	-7.9	-8.0	99.	233.5	43.9
600.0	13998.	-14.1	-32.4	19.	230.2	54.8
550.0	15996.	-16.4	-37.4	14.	233.5	59.9
500.0	18318.	-21.3	-41.6	14.	233.5	56.2
450.0	20839.	-26.5	-45.9	14.	237.9	66.6
400.0	23601.	-31.8	-50.2	14.	240.2	68.4
350.0	25650.	-39.2	-56.4	14.		

STATION ALTITUDE 3989. 0 FEET MSL
[illegible] 1400 [illegible] GMT
[illegible] 30. 82

SIGNIFICANT LEVEL DATA
035002N106Z
WHITE SANDS
TABLE-9

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	RELATIVE PERCENT
971.4	3989.0	8.9	0.3	84.0
958.0	4473.0	8.4	3.7	72.0
951.0	4727.4	7.9	3.6	74.0
946.5	4939.1	6.9	3.5	79.0
935.1	5204.6	5.4	1.7	77.0
911.2	5765.4	4.0	3.6	97.0
883.5	6410.3	2.6	-1.7	73.0
865.8	7516.9	1.5	-3.2	71.0
822.4	8049.8	-3.0	-3.4	97.0
790.0	9867.8	-4.9	-5.2	98.0
680.0	10614.9	-6.9	-7.2	98.0
671.7	10929.6	-7.8	-12.1	71.0
652.3	11677.1	-9.1	-10.1	88.0
638.5	12379.6	-9.9	-32.3	14.0
628.1	12837.0	-9.1	-31.6	14.0
608.4	13781.6	-10.1	-34.0	12.0
588.0	14872.6	-15.2	-36.6	14.0
560.0	16425.8	-20.7	-41.1	14.0
468.2	21116.1	-25.3	-44.9	14.0
418.8	22546.1	-30.5	-49.2	14.0
412.8	22985.5	-30.6	-49.2	14.0
402.0	23819.4	-32.1	-49.9	15.0
364.0	25783.7	-38.0	-54.8	15.0
359.2	26147.4	-38.4	-55.2	15.0
341.0	27254.6	-41.1		

STATION ELEVATION 3989.0 FEET MSL
[illegible] 1400 MDT MST
ATMOSPHERIC [illegible]

UPPER AIR DATA
035002006
WHITE SANDS
TABLE-10

GEODETIC COORDINATES
32.40043 LAT DEG
106.37035 LON DEG

GEOPOTENTIAL ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL. HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	873.4	6.9	6.3	84.0	1074.3	655.0	170.0	8.0	1.000285
4000.0	873.0	6.9	6.3	83.7	1073.9	655.0	170.5	8.0	1.000285
4500.0	857.1	6.3	3.6	72.2	1057.0	654.0	189.0	10.0	1.000273
5000.0	841.5	6.2	2.7	78.1	1045.7	652.3	200.6	12.7	1.000269
5500.0	826.6	4.9	2.5	89.6	1031.5	650.7	207.9	15.7	1.000265
6000.0	810.7	4.0	3.5	96.6	1015.4	649.7	212.6	18.9	1.000265
6500.0	795.5	3.2	.7	83.6	999.8	648.0	216.2	22.2	1.000255
7000.0	780.9	2.4	-2.0	72.7	984.5	647.6	218.6	25.6	1.000246
7500.0	766.5	1.5	-3.1	71.1	969.5	646.4	223.9	26.9	1.000240
8000.0	751.8	.1	-3.1	79.2	956.2	644.8	229.5	28.0	1.000238
8500.0	737.7	-1.4	-3.2	87.7	943.3	643.0	234.0	29.3	1.000235
9000.0	723.8	-2.9	-3.4	96.2	930.5	641.3	237.7	31.1	1.000232
9500.0	710.0	-4.0	-4.4	97.6	916.9	639.8	239.8	33.1	1.000227
10000.0	696.4	-5.3	-5.5	98.0	903.6	638.0	241.6	35.2	1.000223
10500.0	683.0	-6.6	-6.9	98.0	890.9	636.7	243.0	37.7	1.000218
11000.0	669.8	-7.9	-12.6	69.8	878.7	634.9	243.5	41.4	1.000208
11500.0	656.8	-8.8	-14.5	53.4	864.7	633.7	244.0	45.2	1.000202
12000.0	644.1	-9.5	-22.9	32.4	850.4	632.6	243.6	48.6	1.000195
12500.0	631.5	-9.5	-32.0	14.0	834.3	632.0	242.2	51.4	1.000188
13000.0	619.2	-9.4	-32.4	13.4	817.7	632.7	240.9	54.3	1.000184
13500.0	607.1	-9.9	-33.4	12.5	803.1	632.2	240.5	57.2	1.000181
14000.0	595.2	-10.6	-34.2	12.2	789.5	631.3	240.7	60.0	1.000178
14500.0	583.5	-11.7	-34.8	12.6	777.3	630.0	241.0	62.8	1.000175
15000.0	571.9	-12.6	-35.3	13.1	765.2	628.6	240.3	64.4	1.000172
15500.0	560.7	-13.9	-35.9	13.5	753.3	627.3	239.4	65.6	1.000169
16000.0	549.6	-15.0	-36.5	13.9	741.6	625.9	238.6	66.9	1.000167
16500.0	538.6	-16.2	-37.4	14.0	730.2	624.5	238.4	66.9	1.000164
17000.0	527.7	-17.5	-38.4	14.0	719.9	623.0	238.2	66.9	1.000161
17500.0	517.1	-18.7	-39.4	14.0	707.8	621.5	238.4	66.9	1.000159
18000.0	506.7	-19.9	-40.4	14.0	696.9	620.0	239.7	66.9	1.000156
18500.0	496.4	-21.1	-41.5	14.0	686.1	618.5	241.0	67.0	1.000154
19000.0	486.2	-22.4	-42.5	14.0	675.5	616.9	241.8	67.3	1.000151
19500.0	476.2	-23.7	-43.6	14.0	665.0	615.3	241.9	67.9	1.000149
20000.0	466.4	-25.0	-44.6	14.0	654.8	613.7	242.0	68.5	1.000147
20500.0	456.7	-26.1	-45.5	14.0	644.6	612.0	242.1	69.7	1.000144
21000.0	447.2	-27.2	-46.4	14.0	633.3	611.0	242.2	71.4	1.000142
21500.0	437.8	-28.3	-47.3	14.0	622.7	609.7	242.2	73.0	1.000139
22000.0	428.6	-29.3	-48.2	14.0	612.4	608.3	241.9	75.1	1.000137
22500.0	419.7	-30.4	-49.1	14.0	602.2	607.0	241.4	77.3	1.000135
23000.0	410.8	-31.8	-49.3	14.2	590.5	606.5	241.0	79.6	1.000132

STATION ALTITUDE 3933.0 FEET MSL
[illegible] 1900 HRS MST
ASCENSION NO. 62

UPPER AIR DATA
0355022002
WHITE SANDS
TABLE-10 cont'd

GEODETIC COORDINATES
32.40093 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	RELATIVE HUMIDITY PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	702.1	-31.9	-42.8	14.8	580.4	605.2	240.4	80.4	1.000130
24000.0	690.4	-33.1	-50.8	15.0	571.0	603.0	239.7	80.8	1.000128
24500.0	684.9	-34.5	-51.9	15.0	561.9	601.0	239.1	81.3	1.000125
25000.0	676.6	-35.9	-53.0	15.0	552.9	600.1	238.7	80.3	1.000123
25500.0	668.5	-37.2	-54.2	15.0	544.1	598.4	238.3	79.2	1.000121
26000.0	660.5	-38.2	-55.0	15.0	534.6	597.1			1.000119
26500.0	652.6	-39.3	-56.9	10.2**	525.2	595.8			1.000117
27000.0	644.9	-40.5	-67.9	3.4**	516.4	594.2			1.000115

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.0 FEET MSL
[illegible] 1400 MDT MST
ASCENSION NO. 02

MANDATORY LEVELS
03500260[illegible]
WHITE SANDS
TABLE-11

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	4724.	7.0	3.6	74.	194.9	11.2
800.0	6350.	3.4	1.5	87.	215.3	21.3
750.0	8060.	-.1	-3.1	80.	230.1	28.1
700.0	9858.	-4.0	-5.2	90.	241.2	34.6
650.0	11754.	-9.2	-19.3	44.	244.2	47.2
600.0	13783.	-10.1	-34.0	12.	240.0	58.8
550.0	15962.	-15.0	-36.5	14.	238.0	66.8
500.0	18301.	-20.7	-41.1	14.	240.5	67.0
450.0	20824.	-26.9	-46.2	14.	242.1	70.9
400.0	23581.	-32.1	-49.9	15.	240.2	80.5
350.0	26623.	-39.7	-61.2	8.**		

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.